

ABSTRACT OF THE DISCLOSURE

A system for magnetically assisted surgery includes a magnetic support structure, a patient support structure and a magnet having at least four poles attached to the magnetic support structure so that the magnet provides a near-field magnetic field in an operating region of a patient supported by the patient support structure. The magnet is moveable so that the direction of the magnetic field lines in the operating region is adjustable. The magnet may include a pair of essentially semicircular half-segments permanently magnetized and joined in an extremely stable disk configuration. The magnetic field and gradient field provided by the magnet is such that movement of the disk in one plane combined with rotation of the disk is sufficient to orient the magnetic field during surgical use, thereby reducing interference to medical imaging devices needed during surgery. An example of a medical delivery device that may be used for surgery in conjunction with this system is a flexible endoscope or catheter having a series of magnetically permeable rings.